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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/557,607

11/22/2005

Fumio Hashimoto

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32294

7590

02/04/2009

SQUIRE, SANDERS & DEMPSEY L.L.P.
8000 TOWERS CRESCENT DRIVE
14TH FLOOR
VIENNA, VA 22182-6212

EXAMINER

ROBINSON, KEITH O NEAL

ART UNIT

PAPER NUMBER

1638

MAIL DATE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/557,607	Applicant(s) HASHIMOTO ET AL.	
	Examiner KEITH O. ROBINSON	Art Unit 1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 8-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 12-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/29/2008</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action. Applicant's amendment of claims 1-7, withdrawal of claims 8-11 and addition of new claims 12-14, filed October 29, 2008, have been received and entered in full.

2. Claims 1-7 and 12-14 are under examination.

Response to Arguments

3. An English translation, filed October 29, 2008, of the 'Certified copy of foreign priority application 2003-144406', filed in JAPAN on May 22, 2003 submitted under 35 USC 119(a)-(d) and filed November 22, 2005 has been received and entered in full.

4. Applicant's submission of an English translation or concise explanation of the reference for each of the references cited on page 3 of the Office Action mailed July 29, 2008 have been received and entered in full. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement filed October 29, 2008 is being considered by the examiner.

Claim Rejections - 35 USC § 112, second paragraph

5. Claims 1-7 remain rejected and new claims 12-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The

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rejection is maintained for the reasons of record as set forth on page 3 of the Office Action mailed July 29, 2008. Applicant's arguments, filed October 29, 2008, have been fully considered but are not persuasive.

Applicant argues that the claims have been amended to include method steps to more particularly point out and distinctly claim the subject matter of the present invention (see page 9, 3rd paragraph of 'Remarks' filed October 29, 2008).

This is not persuasive. The claims as amended fail to provide any method steps for the claimed method. The claims recite a method without reciting what the method is for. In addition, there is no method step that correlates with the preamble. Therefore, what Applicant requires for protection is unclear.

Claim Rejections - 35 USC § 102

6. Claims 1, 3, 4, 6 and 7 remain rejected under 35 U.S.C. 102(a) as being anticipated by Uddin et al (Acta Horticulturae. 2003. A Proceeding of the XXVI International Horticultural Congress, Elegant Science in Floriculture, pp.51-59, convention held 11-17 August 2002). The rejection is maintained for the reasons of record as set forth on page 4 of the Office Action mailed July 29, 2008. Applicant's arguments, filed October 29, 2008, have been fully considered but are not persuasive.

Applicant argues that the Uddin et al reference does not antedate Applicant's priority date of May 22, 2003 (see page 10, 2nd paragraph of 'Remarks' filed October 29, 2008).

This is not persuasive. The information disclosed in the Uddin et al reference was publicly available the week of August 11-17, 2002 at the XXVI International Horticultural Congress, Elegant Science in Floriculture convention. See MPEP 2132(I) where it states, "[t]he statutory language known or used by others in this country' (35 U.S.C. § 102(a)), means knowledge or use which is accessible to the public." *Carella v. Starlight Archery*, 804 F.2d 135, 231 USPQ 644 (Fed. Cir. 1986). The knowledge or use is accessible to the public if there has been no deliberate attempt to keep it secret. *W. L. Gore & Assoc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983)".

In the instant case, the information in the Uddin et al reference was accessible to the public the week of August 11-17, 2002 and there was no deliberate attempt to keep it secret.

Claim Rejections - 35 USC § 103

7. Claims 1-7 remain rejected and new claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oud et al (*Euphytica* 84: 175-181, 1995), in view of van Raamsdonk (*Genetic Resources and Crop Evolution* 40: 49-54, 1993), taken with the evidence of Griesbach (*J. Heredity* 87(3): 241-245, 1996). The rejection is maintained for the reasons of record as set forth on pages 5-7 of the Office Action mailed July 29, 2008. Applicant's arguments, filed October 29, 2008, have been fully considered but are not persuasive.

Applicant argues that the combination of Oud et al, van Raamsdonk and Griesbach would fail to disclose or suggest, at least, "wherein five multiple alleles, H^T,

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H^F, H^D, H^Z and H^O participate in a hydroxylation of a B-ring of a flavonoid biosynthesis precursor participating in the flavonoid biosynthesis of the pelargonidin (Pgn), the cyaniding (Cyn) and the delphinidin (Dpn) (see page 13, 2nd paragraph of 'Remarks' filed October 29, 2008).

This is not persuasive. Oud et al teach a method for crossing flowering plants based on their pigment genotypes (see, for example, page 176, 2nd column, 'Materials and methods' where it teaches that breeding material that served as acceptors differed considerably in genetic backgrounds and flower color and recombinations using transgenic lines as male as well as female were made with the four selected elite lines); Oud et al also teach genotype H^xH^x · Pg/pg · Cy/cy · Dp/dp, which is heredity of pelargonidin, cyanidin and delphinidin (see, for example, page 176, Figure 1 where it depicts the biosynthetic pathway of anthocyanins in *Petunia hybrida* and teaches pelargonidin, cyanidin and delphinidin as well as genes *Hf* and *Ht*, which Griesbach teaches are genes associated with hydroxylation. See page 243, 1st column, 'Results'.)

Oud et al teach that in *Petunia hybrida* different flower types can be distinguished based on the gene *Un* which determines the 'undulata' shape of the corolla (see page 175, 1st column, 'Introduction') and the specification teaches that genotypes D/d and E/e are associated with corolla characters of double flower type and marginal variegation, respectively (see, for example, page 3 of 'Claims' filed November 22, 2005). Though Oud et al do not teach genotypes D/d and E/e associated with corolla, they do teach the gene *Un* associated with corolla and one of ordinary skill in the art would appreciate that other genes are associated with corolla.

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Thus, it would have been obvious that Oud et al teach or suggest the claimed features.

Applicant argues that van Raamsdonk fails to disclose or suggest the aforementioned claim features, but rather it describes a biosynthetic pathway of anthocyanidins (see page 13, 3rd paragraph to page 14, 2nd paragraph of 'Remarks' filed October 29, 2008).

This is not persuasive. van Raamsdonk teaches the flavonoid biosynthesis route formula of claim 3 (see, for example, page 50, Figure 1 where it depicts the biosynthetic pathway of anthocyanidins). In addition, van Raamsdonk teaches that hydroxylation of the 3' and 5' locations in dihydrokaempferol results in the synthesis of other precursors and that flavonoid 3',5'-hydroxylase HF hydroxylates both locations in the B-ring as well as the three pigments pelargonidin, cyaniding and delphinidin (see page 49, 2nd column, lines 3-18). Thus, it would have been obvious to one of ordinary skill in the art that the combination of the cited references would read on the claimed invention.

Applicant argues that Griesbach fails to cure the deficiencies of Oud et al and van Raamsdonk (see page 14, 2nd paragraph of 'Remarks' filed October 29, 2008).

This is not persuasive. Griesbach teaches genes associated with hydroxylation and thus, it would have been obvious to one of ordinary skill in the art that the combination of the cited references would read on the claimed invention.

Conclusion

8. No claims are allowed.

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9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEITH O. ROBINSON whose telephone number is (571)272-2918. The examiner can normally be reached Monday – Friday, 7:30 a.m. - 4:30 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached at (571) 272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Keith O. Robinson

/Medina A Ibrahim/
Primary Examiner, Art Unit 1638